

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 December 2005 (29.12.2005)

PCT

(10) International Publication Number
WO 2005/123924 A1

- (51) International Patent Classification⁷: **C12N 15/70**
- (21) International Application Number:
PCT/KR2004/002181
- (22) International Filing Date: 30 August 2004 (30.08.2004)
- (25) Filing Language: Korean
- (26) Publication Language: English
- (30) Priority Data:
10-2004-0044881 17 June 2004 (17.06.2004) KR
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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(54) Title: METHOD FOR CELL SURFACE DISPLAY OF TARGET PROTEINS USING FADL OF E. COLI

(57) Abstract: The present invention relates to an expression vector which can effectively express target proteins or peptides on the surface of cells using an outer membrane protein (FadL) of E. coli as a surface anchoring motif. Also, the present invention relates to microorganisms transformed with the expression vector, and a method for stably expressing large amounts of target proteins on the surface of cells by culturing the transformed microorganisms. Furthermore, the present invention relates to a production method of protein arrays, a production method of antibodies, and a bioconversion method, the methods being characterized by using target proteins which have been expressed on the cell surface by the inventive method. In addition, the present invention relates to a method for improving target proteins by the inventive surface expression method. The present invention allows target proteins with normal functions to be expressed on an outer cell membrane. Thus, the present invention will be useful in recombinant live vaccines, the screening of various peptides or antibodies, whole-cell adsorbents for heavy metal removal or waste water treatment, whole-cell bioconversion, and the like.



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